Version 7.1.6 Document Updated: 30 August 2016



KASIKORN BANK

K-Payment Gateway Merchant Integration Guide

Version 7.1.6/2016



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Executive Summary

This document provides comprehensive information for K-Payment Gateway merchants on how to connect their Web site to K-Payment Gateway Service and how to integrate technically.

K-Payment Gateway is tightly integrated with 3D Secure enabled MPI (Merchant Server Plug-in) and therefore K-Payment Gateway merchants can enjoy the highest level of security standardized by Visa and MasterCard International.

K-Payment Gateway communicates with merchant before accepting credit card details from cardholders. After successful communication with the e-commerce merchant, K-Payment Gateway accepts credit card details from the cardholder and communicates with MPI, Visa/ MasterCard Directory, Credit Card Host and Visa Net/Bank Net respectively depending on the credit card's status. Entire message flow is secured by 128-bit SSL security protocol.

Note: This document may be revised from time to time and merchants are advised to download the latest available documents from Merchant Reporting System.

E-Commerce merchants are not allowed to enter cardholder's card information themselves.

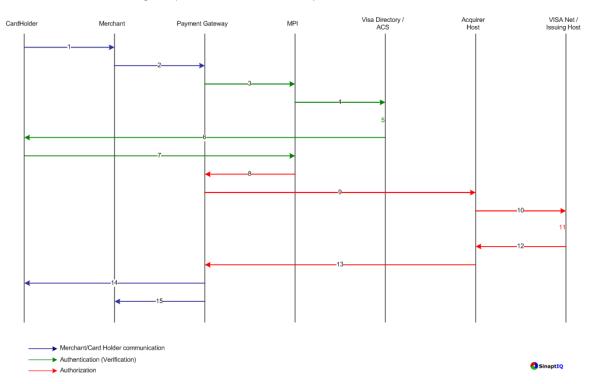
All card details must be input by cardholder.



Chapter 1 - Message Flow (3-D Secure Environment)

Case 1 Customer Using Credit Card from 3D Secure Card Issuer

VISA 3D Enabled E-Commerce Message Flow (Scenario 1. VbV Enrolled Cardholder)

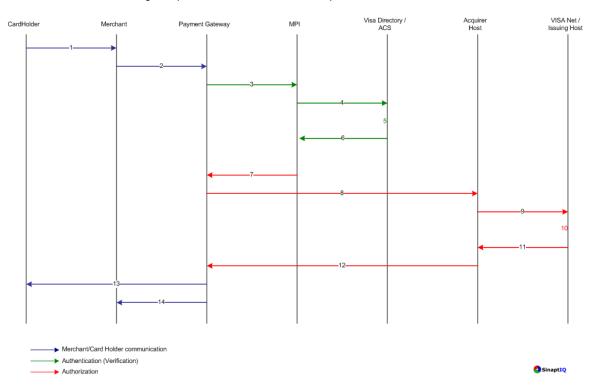


- 1. Cardholder visits merchant Web site and clicks check out button.
- 2. Merchant assembles transaction data and sends to K-Payment Gateway's payment Screen.
- 3. K-Payment Gateway sends transaction details to MPI (Merchant Plug in).
- 4. MPI sends transaction details to Visa/ MasterCard Directory to locate ACS (Access Control Server)
- 5. Visa/MasterCard Directory locates ACS server
- 6. MPI redirects cardholder to ACS server URL, separate into 2 cases:
 - a. In case the customer has not registered 3D Secure, the system will show ADS (Activate During Shopping) screen for the customer to register by input security information for validate the ownership of the credit card
 - b. In case the customer has registered 3D Secure, the system will show password screen
- 7. Cardholder enters password and ACS generates ECI, CAVV and XID
- 8. MPI obtains ECI, CAVV and XID. ECI = 05/ UCAF = 2 (Fully authenticated) and sends them to K-Payment Gateway
- 9. K-Payment Gateway compiles ECI, CAVV and XID in the ISO8583 message and sends to credit card host
- 10. Credit card host sends out transaction message to VISA Net/ Bank Net
- 11. VISA Net/ Bank Net finds Issuer host and gets approval
- 12. VISA Net/ Bank Net sends response code and approval code (if any) back to Acquirer's credit card host
- 13. Acquirer's credit card host forwards ISO message from Visa Net/Bank Net to K-Payment Gateway
- 14. K-Payment Gateway interprets ISO message and displays transaction results for cardholder
- 15. K-Payment Gateway posts transaction results for Merchant



Case 2 Customer Using Credit Card from Non-3D Secure Card Issuer

VISA 3D Enabled E-Commerce Message Flow (Scenario 2. VbV Not Enrolled Cardholder)



- 1. Cardholder visits merchant website and clicks check out button.
- 2. Merchant assembles transaction data and sends to K-Payment Gateway's payment screen.
- 3. K-Payment Gateway sends transaction details to MPI (Merchant Plug in)
- 4. MPI sends transaction details to Visa/MasterCard Directory to locate ACS (Access Control Server)
- 5. Visa/MasterCard Directory locates ACS server
- 6. Visa/MasterCard Directory responds with enrollment status "N" as issuer is not participating in VbV/ SecureCode or ACS server responds with enrollment status "N" as cardholder is not registered/enrolled with Verified by Visa/ MasterCard SecureCode.
- 7. MPI generates ECI and XID. ECI = 6 or UCAF = 1 (Not enrolled) and sends them to K-Payment Gateway
- 8. K-Payment Gateway compiles ECI and XID in the ISO8583 message and sends to credit card host.
- 9. Credit card host sends out transaction message to VISA Net/ Bank Net.
- 10. VISA Net/ Bank Net finds Issuer host and gets approval.
- 11. VISA Net/ Bank Net sends response code and approval code (if any) back to Acquirer's credit card host
- 12. Acquirer host forwards ISO message from Visa Net/ Bank Net to K-Payment Gateway.
- 13. K-Payment Gateway interprets ISO message and displays transaction results for cardholder.
- 14. K-Payment Gateway posts transaction results for Merchant.



Chapter 2 - Using K-Payment Gateway Service

- 1) Merchant fills in application form to use K-Payment Gateway Service
 - a) Full payment Merchant: Cardholders can make payment in full amount of transaction for goods/services through K-Payment Gateway for 36 Currencies (upon to merchant's request). There are 2 types of currency transaction which are MCC- Multi Currency and DCC- Dynamic Currency Conversion
 - b) Smartpay Merchant: Cardholders who use KBank Credit Card can make payment for goods/services with installment plan with K-Payment Gateway starts with 3 to 10 months. Merchant has to apply K-Payment Gateway as a Smartpay Merchant.
 - c) CUP China Union Pay acceptance Merchant
 - d) AMEX AMERICAN EXPRESS acceptance Merchant
- 2) KBank checks Merchant's documents and makes approval. For approved Merchant, KBank will provide the following to Merchant.
 - a) 15 digit Merchant ID for Merchant reference when submitting transactions to KBank
 - b) 8 digit Terminal Number for reference to Terminal ID

Merchant will receive a secure envelope containing Username and Password for Merchant to login to Online Merchant Report. In the event merchant has not received this information, please contact K-Biz Contact Center 02 888 8822 press 3, 3, 6, 3 or e-mail to ecommerce@kasikornbank.com.

- c) Merchant may login at https://rt05.kasikornbank.com/paymentgateway to perform the following:
 - Check Transaction List
 - Search Transaction
 - Perform Settlement
 - Void Transaction
 - Query Summary Report
 - Email to Customer Support
 - Obtain Sample Code to Integrate
 - Change Password
 - Download Integration Guide and Online Merchant Report Manual Documents
- 3) Modify Merchant's Program Code in Website to integrate with K-Payment Gateway. Example of Code can be seen in Online Merchant Report under Menu "Code Library".
- 4) Test the connection and transaction via web browser at
 - URL: https://rt05.kasikornbank.com/pgpayment/payment.aspx
 - Suitable for Visa, MasterCard and JCB card acceptance
 - This URL is for making transaction through Personal Computer and Notebook with any Browser for example Internet Explorer version 6.0 or above, Netscape Navigator, Google Chrome, Safari or Mozilla Firefox.



- URL: https://rt05.kasikornbank.com/mobilepay/payment.aspx
 - Suitable for Visa, MasterCard and JCB card acceptance
 - This URL is for making transaction through Smart Phone such as iPhone, Android BlackBerry or Personal Computer and Notebook which K-Payment Gateway is able to detect the device of each transaction and display the proper screen for them.
- URL: https://rt05.kasikornbank.com/pggroup/payment.aspx
 - Suitable for Visa, MasterCard, JCB, CUP (China Union Pay) and AMEX (AMERICAN EXPRESS) card acceptance
 - This URL is for making transaction with CUP-China Union Pay and AMEX-AMERICAN EXPRESS card which is suitable for Personal Computer and Notebook with any Browser for example Internet Explorer version 6.0 or above, Netscape Navigator, Google Chrome, Safari or Mozilla Firefox.

<u>Note</u>

* Please see Chapter 4 for detailed description of how to integrate the system

Chapter 3 - Recommended Minimum Configuration

Merchant's Server Minimum Configuration

K-Payment Gateway connects with merchant's website with HTML language. So K-Payment Gateway can support many kinds of merchants' server, for example, UNIX, Windows, Linux, etc.

Incase merchants would like to get the approval result from KBank in real-time, the merchants must have SSL System, at least 128 Bits from trusted certification authorities (e.g. Verisign, Entrust) (TLS1.1 or TLS1.2)

Merchant needs to have the basic knowledge of HTML $1.1\ \mathrm{syntax}$ and languages especially:

- How to write HTML FORM POST
- How to receive HTML FORM POST

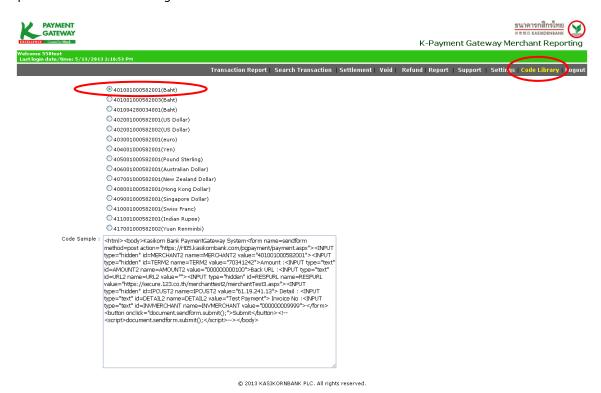
Cardholder's Computer Configuration

Cardholders can use any computer specification, which can connect to the Internet and have Browser program, for example, Internet Explorer 6.0 up, Netscape, Google Chrome, Safari or Mozilla Firefox.



Chapter 4 – Downloading & Integrating Code

Code Library can be accessed from "Code Library" button in the Menu of the Online Merchant Report to view the following screen.



Merchants may copy and paste code from Code Library for immediate use from the above screen. Code will show Merchant ID, Terminal ID and RESPURL information assigned by the system and show in the sample format as follows:

```
<form name="sendform" method="post"
action="https://rt05.kasikornbank.com/pgpayment/payment.aspx">
<INPUT type="hidden" id=MERCHANT2 name=MERCHANT2 value="492100005018001">
<INPUT type="hidden" id=TERM2 name=TERM2 value="20388896">
<INPUT type="hidden" id=AMOUNT2 name=AMOUNT2 value="000000000100">
<INPUT type="hidden" id=URL2 name=URL2
value="https://app1/inetshoppingmall/custresp.asp">
<INPUT type="hidden" id=RESPURL name=RESPURL</pre>
value="https://thipun/inetshoppingmall/pmgwresp.asp">
<INPUT type="hidden" id=IPCUST2 name=IPCUST2 value="1.3.101.61">
<INPUT type="hidden" id=DETAIL2 name=DETAIL2 value="Toshiba Model CM203">
<INPUT type="hidden" id=INVMERCHANT name= INVMERCHANT value="00000000012">
<INPUT type="hidden" id=FILLSPACE name= FILLSPACE value="Y">
                                                                <!--Optional-->
</form>
</body>
</html>
```



Chapter 5 – Submitting Transaction to K-Payment Gateway

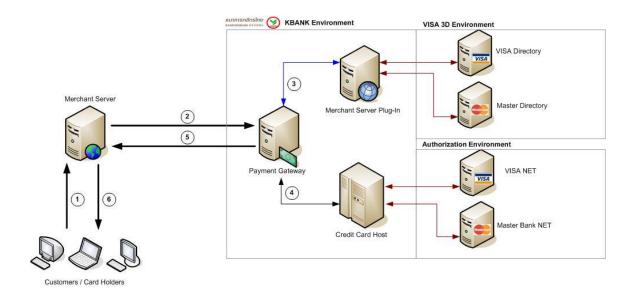


Figure 1: Message Flow between Merchant and K-Payment Gateway

Step 1: Check out from merchant website (Need Merchant Action)

Cardholder/customer visits Merchant Website and chooses a product or adds products to the shopping cart.

Step 2: Redirect to K-Payment Gateway (Need Merchant Action. Refer to Chapter 4 for sample code and screens)

Cardholder/customer checks out from the merchant website and merchant website redirects cardholder to K-Payment Gateway with pre-agreed parameters. The following parameters need to be passed to K-Payment Gateway to process the transaction with Method = POST.

For more security in sending these parameters, merchant <u>must</u> use **MD5 Checksum method** to encrypt them before send post to KBank as steps below.

- a. Arrange all parameters in the following table from no. 1 to no.11 to in one line consecutively.
- b. Add one more parameters "MD5 Secret Key" at the end of the message from a. which KBank will provide merchant. (Merchant must keep 'MD5 Secret Key' as secret between merchant and Kbank. Please strictly do not reveal this key to any other persons who are not concerned.)
- c. Hash message from b. with MD5 method to get MD5 Hash. See more detail how to hash at http://md5encryption.com/. Please use this MD5 Hash as a no.12 parameters in table called CHECKSUM.
- d. There is value of CHECKSUM send post back to merchant's URL2 from KBank as MD5 hashing as well.

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No	Variable	Data Type	Length	Required/ Optional	Description	Remark
1	MERCHANT2	Numeric	15	Required	Merchant ID.	Issued by KBank e.g. 401001234567001
2	TERM2	Numeric	8	Required	Terminal ID.	Issued by KBank e.g. 70123456
3	AMOUNT2	Numeric	12	Required	Total amount of purchased order	No decimal (multiple of 100) e.g. key in 000000078125 = 781.25
4	URL2	Character	255	Required	URL where cardholder will be re-directed back to merchant's Web site and KBank returns variables to when cardholder clicks 'Go Back to Merchant Web site' (Success page) or 'Continue' (Reject page)	http://www or https://www Must post to KBank for support AMEX and CUP card.
5	RESPURL	Character	255	Optional	URL where KBank will send a variable ' PMGWRESP2 ' to merchant's server (Back Office)	https://www (must be supported- SSL at lease 128 bits)
6	IPCUST2	Numeric	15	Required	IP address of merchant's server	IP Address e.g. 111.111.111.205
7	DETAIL2	Character	30	Optional	Product Description (A-Z or 0-9)	Electric Fan – Model XYZ103 For support CUP card can use the symbol that included minus sign, under line, dot and bracket ,not available for others.
8	INVMERCHA NT	Numeric	12	Required	Invoice No.	Issued by Merchant (should be a unique number)
9	FILLSPACE (Option)	Character	1	Optional	Card type required?	Y: Want to know the transaction's card type N: Do not want



10	SHOPID (Option for customized Payment template and SmatPay)	Character	2	Optional	Shop ID. for payment template	1. Blank or 00: Default Eng. Template 2. TH: Default Thai Template 3. 01,02,03,: Specific Template uploaded (To be confirmed) 4. 41,42,43,: SmartPay Template
11	PAYTERM2 (Option for SmartPay)	Numeric	2	Optional	Number of month for installment	e.g. 3 = 3 Months 6 = 6 Months 10 = 10 Months (3, 6,, 10 Months)
12	CHECKSUM (Require for security)	Character	32	Required	MD5 Secure Hash	

Example:

```
<form name="sendform" method="post"
action="https://rt05.kasikornbank.com/pgpayment/payment.aspx">
<input type="hidden" id=MERCHANT2 name=MERCHANT2 value="492100005018001">
<input type="hidden" id=TERM2 name=TERM2 value="20388896">
<input type="hidden" id=AMOUNT2 name=AMOUNT2 value="000000150099">
<input type="hidden" id=URL2 name=URL2</pre>
value="https://www.xxx.com/shopping/custresp.asp">
<input type="hidden" id=RESPURL name=RESPURL</pre>
value="https://www.xxx.com/shopping/pmgwresp.asp">
<input type="hidden" id=IPCUST2 name=IPCUST2 value="111.111.111.205">
<input type="hidden" id=DETAIL2 name=DETAIL2 value="Electric Fan - Toshiba Model CM203">
<input type="hidden" id=INVMERCHANT name=INVMERCHANT value="000000000012">
<input type="hidden" id=FILLSPACE name=FILLSPACE value="Y">
                                                               <!--Option-->
<input type="text" name="SHOPID" id="SHOPID" value="00">
                                                           <!--Option-->
<input type="text" id=Payterm2 name=Payterm2 value="3"> <!--Option-->
<input type="text" id="CHECKSUM" value="4aa8447bfdd91f31f4cbed691397c33f">
</form>
</body>
</html>
```

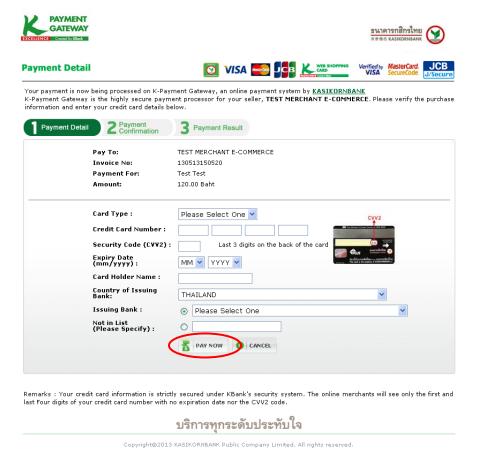
Remark

Checksum is arrange data and MD5 encryption, please make sure all data has been arranged in this order (can skip if anyone don't have)
In form: MERCHANT2 + TERM2 + AMOUNT2 + URL2 + RESURL + IPCUST2 + DETAIL2 + INVMERCHANT + FILLSPACE + SHOPID + PAYTERM2 + MD5 Key then MD5 encryption with all arranged data.



Purchase information will be displayed on the screen for cardholder as follows.

a) Full Payment Transaction

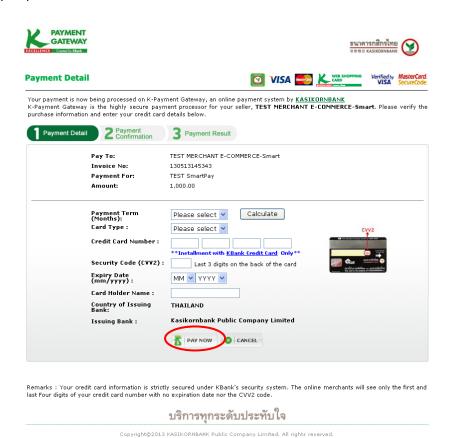


When cardholder enters credit card number, Security Code (CVV2/CVC2), card expiration date, Card Type, Issuer Bank Country's Name, and Issuer Bank's Name into the appropriate fields then clicks on "PAY NOW" button, information will be displayed on the following screen for confirmation.





b) SmartPay Payment Transaction



Cardholder can select prefer term of payment and enters credit card number, Security Code (CVV2/CVC2), card expiration date, Card Type, Issuer Bank Country's Name, and Issuer Bank's Name into the appropriate fields then clicks on "PAY NOW" button, information will be displayed on the following screen for confirmation.





c) For CUP- China Union Pay with UPOP (Union Pay Online Payment) acceptance

Merchants have to integrate by METHOD=POST with K-Payment Gateway as well but have to change to post to https://rt05.kasikornbank.com/pggroup/payment.aspx. Merchant's website will Re-Direct to KBank card type page and then customer can select payment with CUP by click at Pay with UnionPay. K-Payment Gateway will Redirect the page to CUP-UPOP system for cardholders to enter their card's information such as card no., expiry date, CVN2. But for debit cardholders may enter only card no. and password. Then click to receive SMS of Dynamic Verification Code. The SMS will send to the registered phone no. for that particular card. Customer now enter the code and input the text from picture then click payment. If payments are success customer will see success page then click the button to redirect back to K-Payment Gateway.







d) For AMEX - AMERICAN EXPRESS

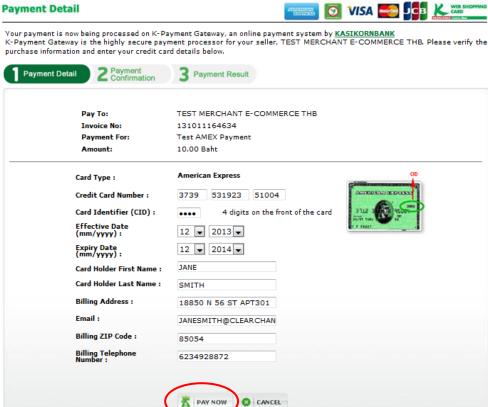


Merchants have to integrate by METHOD=POST with K-Payment Gateway as well but have to change to post to https://rt05.kasikornbank.com/pggroup/payment.aspx. Merchant's website will Re-Direct to KBank card type page and then customer can select payment with AMEX by click at Pay with AMEX. K-Payment Gateway will Redirect the page for cardholders to enter their card's information such as card no., Effective Date, Expiry Date, Card Holder First Name, Card Holder Last Name, Billing Address, Email, Billing ZIP Code and Billing Telephone Number. Then click "PAY NOW" button to redirect to confirmation page. After that click "CONTINUE" button. If payments are success customer will see success page.



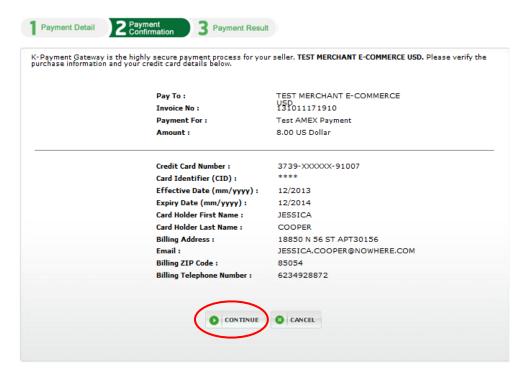






Payment Detail







Step 3: Verified by Visa/ MasterCard SecureCode

K-Payment Gateway communicates with MPI (Merchant Server Plug-In) to perform authentication using VISA3D Environment. MPI communicates with Visa Directory Server or MasterCard Directory Server. Cardholder who is currently enrolled with Verified by Visa will be prompted to enter a password in the appropriate field on his/her issuing bank's page as displayed in the following screen



Note: Verified by Visa cardholders enrolled with other Verified by Visa card issuers may see a similar screen.



Step 4: System checking for Authorization

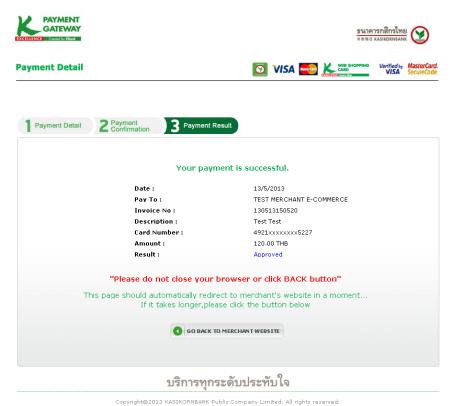
Based on the response from VISA3-D Environment (MPI), K-Payment Gateway sends authorization request to credit card host. Credit card host communicates with VISA NET or MasterCard Bank NET. During this process the following screen will be displayed.



Step 5: Transaction Result and Return Message back to Merchant Website (Need Merchant Action)

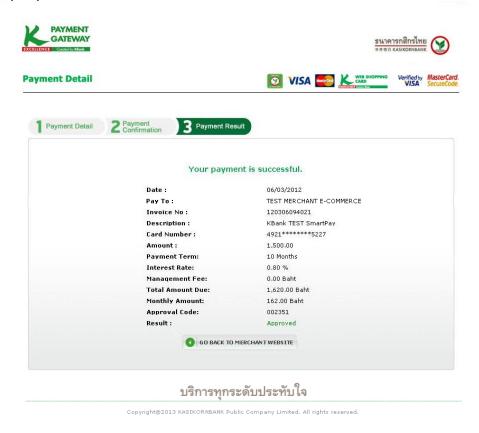
K-Payment Gateway displays the transaction results on screen for the cardholder as follows.

- Transaction approved
- a) Full Payment Transaction





b) SmartPay Payment Transaction



c) CUP - UPOP Transaction





d) AMEX Transaction









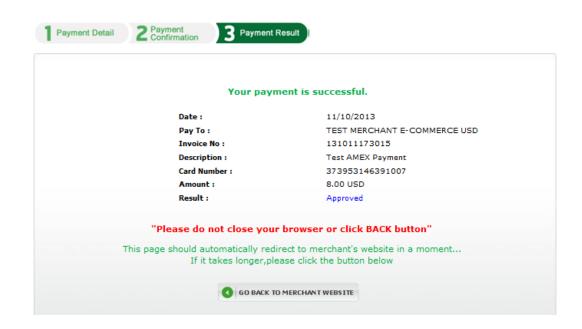












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- Transaction declined

Cardholder can click at Pay again to continue make transaction with same invoice no. for 3 times.

a) Full Payment Transaction



b) SmartPay Payment Transaction





Transaction result return to Merchant Website, there are 2 methods

• Return after clicking at "Go Back to Merchant Website"

After the cardholder clicks "Go Back to Merchant Website" button (in case of successful transaction) or "Continue" button (in case of unsuccessful transaction), the Bank's transaction result page will redirect the cardholder to URL the merchant submitted to the Bank (URL2 variable). The Bank will send the transaction result with the following parameters to the merchant (Post method), as long as the cardholder remains on the same browser session.

No.	Variable	Data Type	Length	Description	Remark
1	HOSTRESP	Numeric	2	Response Code	00 = Approved, Others = Not Approved (Please see detail in Appendix C.)
2	REFCODE	Character	12	Kbank's reserved variable	Reserved (e.g. XXXXXXXXXXXX)
3	AUTHCODE	Character	6	Authorize Code	In case of approved response
4	RETURNINV	Character	12	Invoice No.	000000000012
5	UAID (RESERVED - not use)	Character	36	Kbank's reserved variable	Reserved (e.g. XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
6	CARDNUMBER	Character	16	First 4 and Last 4 of Credit Card Number	4234XXXXXXX9999
7	AMOUNT	Numeric	12	Transaction amount sent to host (2-digit Decimal) * JPY: no decimal KRW: no decimal	e.g. 000000004155 = 41.55 USD = 4155.00 JPY = 4155.00 KRW
8	THBAMOUNT (Option for DCC Transaction)	Numeric	12	Amount that merchant posts on Web site (2-digit decimal)	In case of cardholder chooses THB currency, this field will be "XXXXXXXXXXXXXX
9	CURISO	Numeric	3	Transaction currency	e.g. 764=Baht/ 840 = USD/ 036 = AUD/978 = EUR/ 392=JPY/ 826 = GBP/ 554 = NZD/ 344=HKD/ SGD=702/ CHF= 756
10	FXRATE (Option for DCC Transaction)	Numeric	12	Exchange rate of transaction (4-digit decimal)	e.g. 000000283155 = 28.3155 In case of cardholder chooses THB currency, this field will be "XXXXXXXXXXXXXXXX"
11	FILLSPACE	Character	20	Type of Card (if `FILLSPACE' variable set to `Y')	e.g. KBANKCARDXXXXXXXXXXXV VISACARDXXXXXXXXXXXX MASTERCARDXXXXXXXXXX JCBCARDXXXXXXXXXXXXX CUPCARDXXXXXXXXXXXXXX AMEXCARDXXXXXXXXXXXXXX
12	MID (Option for SmartPay)	Numeric	15	Issued by Kbank	e.g. 401004111111001



No.	Variable	Data Type	Length	Description	Remark
13	PLANID (Option for SmartPay)	Numeric	3	Plan ID Value for Smartpay	Always = 999
14	PAYMONTH (Option for SmartPay)	Numeric	2	Number of month for installment	e.g. 03 = 3 Months (03,04,05,, 10 Months)
15	INTTYPE (Option for SmartPay)	Numeric	1	Interest calculation method for smart payment	1 = Effective Rate 2 = Flat Rate 3 = Progressive Rate
16	INTRATE (Option for SmartPay)	Numeric	6	Interest rate charged for smart payment per month (3-digit Decimal)	e.g. 000800 = 0.80%
17	AMTPERMONTH (Option for SmartPay)	Numeric	9	Amount payment per Month for smart payment (2-digit Decimal)	e.g. 000341333 =3413.33 THB
18	TOTALAMT (Option for SmartPay)	Numeric	12	Total amount include Interest amount for smart payment (2-digit Decimal)	e.g. 000001024000 = 10,240.00 THB
19	MANGFEE (Option for SmartPay)	Numeric	5	Management Fee for smart payment (2-digit Decimal)	e.g. 00000 = 000.00
20	INTMODE (Option for SmartPay)	Numeric	2	Mode for Interest payment acceptance	01 = Merchant pay Int. 02 = Customer pay Int. 03 = Supplier pay Int. 04 = Special Int.
21	MD5CHECKSUM	Character	32	MD5 Secure Hash	Use MD5 Function
		Total Length	230		

Example in Active Server Page (VBScript):

HostResp = Request.Form("HOSTRESP") show the customer approval list

'00'= approved

'01'= not approved

HostRef = Request.Form("REFCODE") reference no. from KBANK

HostAuth = Request.Form("AUTHCODE") authorized code from KBANK

Credit card type used by the customer. KBANK will only send this value to the merchant, if the Step 4 of 'FILLSPACE' variable set to 'Y'

Sample of values returned by the Bank for MCC transactions:

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AMOUNT=000000040050 THBAMOUNT=XXXXXXXXXXXX CURISO= 764 FXRATE=XXXXXXXXXXXX FILLSPACE=VISACARDXXXXXXXXXXXX

Sample of values returned by the Bank for DCC transactions:

Sample of values returned by the Bank for SmartPay transactions:

HOSTRESP=00 RESERVED1=XXXXXXXXXXXXXX AUTHCODE=000002 RETURNINV=00000012111 CARDNUMBER=4072XXXXXXXX4249 AMOUNT=000000040050 THBAMOUNT=XXXXXXXXXXXXX CURISO = 764 FXRATE=XXXXXXXXXXXXX FILLSPACE=VISACARDXXXXXXXXXXXXX MID=401004999999001 PLANID=999 PAYMONTH=03 INTTYPE=2 INTRATE=000800 AMTPERMONTH=000003755 TOTALAMT=000000011264 MANGFEE=00000 INTMODE=02 MD5CHECKSUM=4aa8447bfdd91f31f4cbed691397c33f



• For merchants require to get transaction results in real time (SSL required)

Merchants can receive transaction information in real time via K-Payment Gateway's URL response sent by the Bank (Step2: "RESPURL" variable). The following parameters will be passed to merchants in "PMGWRESP2" variable by POST method.

No.	Field Name	Туре	Length	Position	Description	Remark
1	TransCode	Numeric	4	1	Transaction Code	0110
2	Merchant ID	Numeric	15	5	Issued by Kbank	e.g. 481212111111111
3	Terminal ID	Numeric	8	20	Issued by Kbank	e.g. 71111111
4	Shop No	Numeric	2	28	Shop Number	Always = 00
5	Currency Code	Numeric	3	30	Transaction currency (See details of Currency Code in Appendix B)	e.g. 764 = THB 840 = USD 036 = AUD 978 = EUR 392 = JPY 826 = GBP 554 = NZD 344 = HKD 702 = SGD 756 = CHF
6	Invoice No	Numeric	12	33	Unique sent by merchant	e.g. 111111111111
7	Date	Numeric	8	45	DDMMYYYY	e.g. 20112007
8	Time	Numeric	6	53	HHMMSS	e.g. 141222
9	Card No.	Numeric	19	59	16 digits (shift Left)	e.g. 4751XXXXXXXX1452XXX
10	Expired Date	Numeric	4	78	YYMM	e.g. XXXX
11	CVV2/ CVC2	Numeric	4	82	3 digits (shift Left)	e.g. XXXX
12	TransAmount	Numeric	12	86	2- digit decimal * JPY: no decimal KRW: no decimal	e.g. 000000250099 = 2,500.99 THB, USD = 250,099 JPY = 250,099 KRW
13	Response Code	Numeric	2	98	Transaction Response Code	e.g. Approved = 00 Other = Not approved = (Please see detail in Appendix C.)
14	Approval Code	Alphanumeric	6	100	Transaction Approval Code (For CUP ,if declined response code = XXXXXXX)	e.g. T15415 , 003422
15	Card Type	Numeric	3	106	001=VISA, 002=Master 003=KBank, 004=JCB, 005=CUP, 007=AMEX	e.g. 001, 002,003,004,005,007
16	Reference1	Alphanumeric	20	109	Merchant Reference 1 (reserved)	Reserved (Not use)
17	Plan ID (Value for SmartPay)	Numeric	3	129	Plan ID Value for Smartpay	Always = 999
18	Pay Month (Value for SmartPay)	Numeric	2	132	Number of month for installment	e.g. 03 = 3 Months (03,04,05,10 Months)
19	Interest Type (Value for SmartPay)	Numeric	1	134	Interest calculation method for smart payment	1 = Effective Rate 2 = Flat Rate 3 = Progressive Rate
20	Interest Rate (Value for SmartPay)	Numeric	6	135	Interest rate charged for smart payment per month (3-digit Decimal)	e.g. 000800 = 0.80%



No.	Field Name	Туре	Length	Position	Description	Remark
21	Amount per Month (Value for Smart Pay)	Numeric	9	141	Amount payment per Month for smart payment (2-digit Decimal)	e.g. 000341333 =3413.33 THB
22	Total amount (Value for Smart Pay)	Numeric	12	150	Total amount include Interest amount for smart payment (2-digit Decimal)	e.g. 000001024000 = 10,240.00 THB
23	Management Fee (Value for Smart Pay)	Numeric	5	162	Management Fee for smart payment (2-digit Decimal)	e.g. 00000 = 000.00
24	Interest Mode (Value for Smart Pay)	Numeric	2	167	Mode for Interest payment acceptance	01 = Merchant pay Int. 02 = Customer pay Int. 03 = Supplier pay Int. 04 = Special Int.
25	FX Rate (Value for DCC)	Numeric	20	169	Exchange Rate (4-digit decimal) For DCC transaction In case of cardholder finally chose THB currency, this field will have "XXXXXXXXXXXXXXXX"	e.g. 000000414152 = 41.4152
26	THB Amount (Value for DCC)	Numeric	20	189	For DCC transaction, amount that merchant posts on Web site (2-digit decimal) In case of cardholder finally chose THB currency, this field will have "XXXXXXXXXXXXXXXX"	
27	Customer Email	Alphanumeric	100	209	Customer Email	e.g. XXXXXXXXX
28	Description	Alphanumeric	150	309	Product Description	e.g. Electric Fan – Model XYZ103
29	Payer IP Address	Alphanumeric	18	459	Payer IP Address (shift left)	e.g. 10.152.121.125XXXX
30	Warning Light	Alphanumeric	1	477	R=Red, Y=Yellow, G=Green, X=Not Support	e.g. R, Y, G, X
31	Selected Bank	Alphanumeric	60	478	Selected Bank Name	e.g. Kasikornbank Public Company Limited
32	Issuer Bank	Alphanumeric	60	538	Bank Name from Card's BIN Number	e.g. Kasikornbank Public Company Limited
33	Selected Country	Alphanumeric	45	598	Selected Country	e.g. THA
34	IP Country	Alphanumeric	45	643	IP Address Country	e.g. THA
35	Issuer Country	Alphanumeric	45	688	Issuer Bank Country	e.g. THA
36	ECI	Numeric	4	733	VbV/SC Parameter	VbV = 0005, 0006, 0007 SecureCode = 0000, 0001, 0002 JSecure = 0005, 0006, 0007
37	XID	Numeric	40	737	VbV Parameter	e.g.1251111111111
38	CAVV	Numeric	40	777	VbV Parameter	e.g.12511111111111



Total 816 Length

Sample of MCC transaction Response Message

PMGWRESP2=01104921010005900017340000100764000000121362310120081602424973XXX XXXXXXXXXXXXXXXXXXXXXXXXXXTest 0.198.205.168XXXXRKasikornbank Public Company LimitedXXXXXXXXXXXXXXXXXXXXXXXXXSociete PMGWRESP2= 0110 492101000590001 73400001 00 764 000000121362 31012008 160242 4973XXXXXXXX3855XXX XXXX XXXX 00000087400 => Transaction Amount (2-digit decimal) 00 000002 001 XXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXX Test 10.198.205.168XXXX



Sample of <u>DCC</u> transaction Response Message

XXXXXXXXXXXXXXXXXXXTest 0.198.205.168XXXXRKasikornbank Public Company LimitedXXXXXXXXXXXXXXXXXXXXXXXXAustralia and New Zealand Banking Group 0000000000000000 PMGWRESP2= 0110 456001000590001 73400006 00 036 00000012111 31012008 153453 4072XXXXXXXX4249XXX XXXX XXXX 00000000004 => Transaction Amount (2-digit decimal) 00 000002 001 XXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXX 00000000000000283155 => FX rate (4-digit decimal)Test Χ 10.198.205.168XXXX Australia and New Zealand Banking Group LimitedXXXXXXXXXXXXXX 0006

PMGWRESP2=01104560010005900017340000600036000000012111310120081534534072XXX



Sample of **SmartPay** transaction Response Message

XXXXXXXXXXXXXXXXXXXTest 0.198.205.72XXXXXRStandard Chartered Bank (Thai) Public Company LimitedXXXXXXKasikorn PMGWRESP2= 0110 401004053429001 70345776 00 764 110421142429 21042011 142630 5411XXXXXXXX8981XXX XXXX XXXX 00000011000 => Transaction Amount (2-digit decimal) 00 005038 002 XXXXXXXXXXXXXXXXXXXX 999 => Smart Pay: Plan ID. 10 => Smart Pay: Pay Month 2 => Smart Pay: Interest Type 000800 => Smart Pay: Interest rate 000001188 => Smart Pay: Amount per month (2-digit decimal) 00000011880 => Smart Pay: Total Amount (2-digit decimal) 00000 => Smart Pay: Management fee (2-digit decimal) => Smart Pay: Interest Mode XXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXX Test Χ 10.198.205.168XXXX 0002



Note: .

- i. In case that Merchants need to receive real time result, merchants' website is required SSL certificates.
- Merchants need to provide URL and IP. Address to KBank for receiving real time result through menu Support in Merchant Reporting System. (https://rt05.kasikornbank.com/paymentgateway/)
- iii. In case that Merchants using system and found that some transactions do not receive Response Message back from KBank, Merchant's user can request response message once again by yourself. Merchant's user login with his/her user name and password to Online Merchant Reporting (https://rt05.kasikornbank.com/paymentgateway/), search for the transaction and click 'Details' of that particular transaction.



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There is another pop-up window contains details of that transaction, user has to scroll down to the end of the page and click at '**Get Transaction Result**' then system will send response message to merchant's database again.





Step 6: Checking Data accuracy (Need Merchant Action)

After merchants receive result back from K-Payment Gateway, Merchant have to check for data accuracy once again whether data sent out is matched with received response message. Merchant's system should check these main variables.

- 1. **Merchant ID.**: Check if received and sent data is the same.
- 2. **Invoice Number**: Check if received and sent data is the same.
- 3. Transaction Amount: Check if received and sent data is the same.
- 4. **Response Code**: Check for '00' as Authorized or success transaction. If merchant receives other response code, the transaction is not authorized or success.
- 5. Merchants must decrypt response message form KBank with MD5 CheckSum
- 6. **IP Address**: Check for KBank's IP address must be 203.146.18.94 only.

If all variables which merchant received are all correct and matched, the result message can be used for further processing.

Merchant displays transaction results for cardholder. Merchant also can checks for all transactions' details and status from Online Merchant Reporting by login with provided user name and password to this URL https://rt05.kasikornbank.com/paymentgateway/. Merchant continues with delivery process of services/products on his or her own.

Merchants requiring further information or encountering problems connecting with K-Payment Gateway system may contact K-Biz Contact Center 02 888 8822 press 3, 3, 6, 3 or e-mail to ecommerce@kasikornbank.com



Appendix A

PMGWRESP Format

The following data format is only used as referral of merchants which have previously received variable "PMGWRESP" for real time result with 13 fields and 222 characters.

No.	Field Name	Туре	Length	Position	Description	Remark
1	Response Code	Numeric	2	1	Result from Issuer	00 = Approved, Others = Not Approved (Please see detail in Appendix C)
2	Reserved1	Character	12	3	Kbank's reserved variable	Reserved (i.e. XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
3	Authorize	Character	6	15	Authorized Number from KBANK	In case of approved response
4	Reserved2	Character	36	21	Kbank's reserved variable	Reserved (i.e XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
5	Invoice no.	Numeric	12	57	Invoice no.	The same value of INVMERCHANT
6	Timestamp	Character	14	69	Transaction date and time	e.g 31012008 <u>151245</u>
7	TransAmount	Numeric	12	83	Transaction amount sent to host (2-digit Decimal) * JPY: no decimal	e.g 000000004155 = 41.55 USD = 4155.00 JPY
8	Reserved3	Character	40	95	Kbank's reserved variable	Reserved (i.e XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
9	Card Type	Character	20	135	Card Type	VISACARDXXXXXXXXXXX
10	Reserved4	Character	40	155	Kbank's reserved variable	Reserved (eg. XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
11	THB Amount	Numeric	12	195	For DCC Transaction only, Amount that merchant posts on Web site (2-digit decimal)	In case of cardholder chooses THB currency, this field will be "XXXXXXXXXXXXXXXX"
12	TransCurrency (ISO)	Numeric	3	207	Foreign currency	e.g 764=Baht/ 840 = USD/ 036 = AUD/978 =EUR/ 392=JPY/ 826 =GBP/ 554 =NZD/ 344=HKD/ SGD=702/ CHF= 756
13	FXRate (DCC Transaction)	Numeric	12	210	For DCC Transaction only, Exchange rate of transaction (4-digit decimal)	e.g 000000283155 = 28.3155 In case of cardholder chooses THB currency, this field will be "XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
			Length	<u>222</u>		

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Sample of data being sent to merchant

In case of approved transaction:

In case of not approved transaction:



Appendix B

Currency code

No.	Currency ISO Code (CURISO)	CURRENCY
1	764	ТНВ
2	840	USD
3	978	EUR
4	392	JPY
5	826	GBP
6	036	AUD
7	554	NZD
8	344	HKD
9	702	SGD
10	756	CHF
11	356	INR
12	578	NOK
13	208	DKK
14	752	SEK
15	124	CAD
16	458	MYR
17	156	CNY
18	901	TWD

No.	Currency ISO Code (CURISO)	CURRENCY
19	446	МОР
20	096	BND
21	784	AED
22	144	LKR
23	050	BDT
24	682	SAR
25	524	NPR
26	586	PKR
27	710	ZAR
28	608	PHP
29	634	QAR
30	704	VND
31	512	OMR
32	643	RUB
33	410	KRW
34	360	IDR
35	414	KWD
36	048	BHD



Appendix C Response Code

Return Code	Meaning	Recommendation
00	Approved	Payment Completed
01	Refer to card issuer	Give cardholder contacts issuer bank
03	Invalid Merchant ID	Please contact KBank
05	Do not honor	Cardholder input invalid card information. Ex. Expiry date, CVV2 or card number. Give cardholder contacts issuer bank.
12	Invalid transaction	Please contact KBank
13	Invalid Amount	Payment amount must more than 0.1
14	Invalid Card Number	Please check all digits of card no.
17	Customer Cancellation	Customers click at cancel button in payment page when they make transaction. Customers have to make new payment transaction.
19	Re-enter transaction	Duplicate payment. Please contact KBank
30	Format Error	Transaction format error. Please contact KBank
41	Lost Card – Pick up	Lost Card and Cardholder give up.
43	Stolen Card – Pick up	Stolen Card and Cardholder give up
50	Invalid Payment Condition	Ex. Session time out or invalid VbV Password : ask cardholders to try ma again and complete transaction within 15 minutes with correct card information.
51	Insufficient Funds	Not enough credit limit to pay. Please contact issuer
54	Expired Card	Cardholder key in invalid expiry date
58	Transaction not Permitted to Terminal	Issuer does not allow to pay with debit card (Visa Electron, Mastercard Electron)
91	Issuer or Switch is Inoperative	Issuer system is not available to authorize payment
94	Duplicate Transaction	Please inform KBank to investigate
96	System Malfunction	Issuer bank system can not give a service
xx	Transaction Timeout	Can not receive response code from issuer with in the time limit